

# **Instructional System Design Specialist Statement of Work**

## **I. Position Summary**

Provides assistance to highway safety specialists, training personnel, and the team leader in development, revision, evaluation, research and support of NHTSA/National Traffic Safety Division (NTSD) @ Transportation Safety Institute (TSI) training courses, which have a direct impact on the nation wide training mission. Performs instructional system design and development activities and agency duties as assigned.

## **II. Major Duties and Responsibilities**

1. Assists the team leader and other NTSD @ TSI/NHTSA personnel in performing various Instructional System Design (ISD) activities related to all aspects of program and technical training.
2. Develops innovative and creative training materials using Desktop Publishing to redesign and reformat curriculum for marketing and conversion of training materials from WordPerfect to Word.
3. Develops and implements web-based training programs.
4. Develops and performs developmental activities to ensure instructional objectives are based on desired learning outcomes.
5. Applies adult learning principles and theory to ensure sound, logical sequencing of course content.
6. Receives course assignments with the objectives, topics to be covered, and general content in a prescribed form.
7. Assists with the implementation of evaluation guidelines for new training materials.
8. Ensure documentation requirements governing training design and development are accomplished.
9. Develops or adapts new or revised training or testing materials for formal course use.

10. Supports the NTSD @ TSI training program for the professional development of State Highway Safety and NHTSA program managers.

### **III. Knowledge Required by the Position**

Must have a thorough knowledge of major principles, theories, and research findings in adult learning theory and cognitive psychology. Knowledge of the ISD model and principles, methodologies and techniques of task analysis in order to ensure training outcomes are congruent with required knowledge, skills, and abilities; and a clear knowledge and understanding of TSI training standards, policies and procedures.

- A. Ability to plan, design, and conduct extensive evaluations of broad programs in order to identify course and program strengths and weaknesses, determine program compliance, and resolve critical and complicated program issues.
- B. Skill in managing team efforts, negotiation techniques, and conflict resolution in order to accomplish planned evaluation projects, provide assistance to resolve philosophical differences with managers.
- C. Ability to plan, develop, design, format and provide extensive desktop publishing services for curriculum using computer programs developed for these purposes for graphic design and professional page layout using such programs as: Adobe In Design, Adobe Acrobat, Adobe Photo Shop, Quark and PageMaker.
- D. Ability to plan, develop, design, format and make operational web-based training programs.
- E. Ability to perform various statistical analyses in order to interpret evaluative data and describe trends.
- F. Knowledge of major program goals and services within NHTSA and ways in which the programs interface in order to evaluate program worth on behalf of NHTSA and in coordination with the counterparts at NHTSA.
- G. Knowledge of major principles, methodologies and techniques of task analysis in order to ensure training outcomes are congruent with required knowledge, skills and abilities.

- H. Knowledge of principles, theories, methodologies, and models of ISD in order to develop a systematic approach to the design and development of training materials and courses.
- I. Knowledge of principles, theories, methodologies, and techniques of instructional materials development in order to develop or revise training courses and programs.
- J. Knowledge of advanced state-of-the-art training technologies, such as interactive computer-assisted instruction, simulators, interactive videodiscs, etc; in order to design and adapt instructional strategies and training media when traditional technologies are ineffective, inefficient or inapplicable.
- K. Knowledge of authoring languages and systems in order to design and develop training media utilizing computer assisted technology.
- L. Knowledge of TSI training standards, policies and procedures in order to develop, revise, and perform maintenance of training courses and to ensure educational technical compliance of courses.

#### **IV. Supervisory Controls**

Independently performs routine work that requires original development and revision of materials or methods. Coordinates with Subject Matter Experts (SME's) and other team members as necessary. Completed work is usually reviewed for technical accuracy, consistency with course objectives, educational effectiveness, and program policy.

#### **V. Guidelines**

Required to exercise reasonable judgment in dealing with NTSD curriculum development and revision issues, as well as NTSD team leaders, NHTSA and SHSO program managers and subject matter experts and; exhibit originality and ingenuity, and solicit technical expertise in the interpretation of existing guidelines. Assignments are characterized by policy changes or new circumstances affecting specific situations that may require adjustments in methodology differing from those in existing guidance.

## **VI. Complexity**

The work requires the ability to perform many different tasks in order to effectively accomplish the agency's training mission. Assignments involve coordination with various aspects of the training program and evaluation of existing training activities. Projects require an in-depth knowledge of ISD principles for curriculum development methods and techniques or develop new ones to meet agency training program requirements.

## **VII. Scope and Effect**

The purpose of the work is to provide IDS advice and guidance in the design of agency technical training; to function as a team member in achieving organizational goals; to plan, organize and analyze accumulated data and information; prepare briefings for TSI and/or RITA and NHTSA staff; and to serve as a technical resource for the resolution of educational design/development issues within TSI.

## **VIII. Personal Contacts and Purpose of Contacts**

Personal contacts are with other employees and support personnel within the division, agency, and outside of the immediate organization. These contacts are at various levels in TSI, and include other staff members. The purpose of the contact is to analyze, organize and coordinate activities; to identify and resolve problems in the design and development of training materials in which existing guidelines and methods are not adaptable or where none exist; to evaluate and validate effectiveness of training materials and methodologies; and to advise technical experts on the incorporation of new training methodologies.

## **IX. Physical Demands**

Work is usually performed sitting at a desk, in conferences, briefings, meetings, group problem solving activities, or standing while conducting training. Normally, no special physical demands are involved in performing the work. Required to travel to various field locations to conduct meetings and prepare curriculum in external locations.

## **X. Work Environment**

The work environment is the normally found in office and classroom settings; lighting, heating and ventilation are generally adequately controlled.